

**REMARKS/ARGUMENTS**

Applicants have updated the continuing application data paragraph.

Claims 1-25 are pending. New dependent claims 22-25 have been added. No new matter has been introduced.

Applicants are submitting a terminal disclaimer to overcome the double-patenting rejections.

Claims 1-21 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Anderson (6,168,948) in view of Murphy (5,374,522).

Applicants respectfully request reconsideration of this rejection in view of the following arguments.

**Claims 1-3 and 18-21**

Applicants respectfully submit that independent claims 1 and 18 are patentable over Anderson and Murphy for several reasons. First, it would not have been obvious or desirable to one skilled in the art to try to combine the device of Anderson with the ultrasound bath and beads lysis technique taught by Murphy. Murphy teaches that cells may be lysed by placing them in a container with beads and then submerging the container in an ultrasound bath. One problem with this technique is that the distribution of ultrasonic energy in the bath is seldom uniform, so that a technician must locate a high energy area within the bath and place the container into that area. So in order to combine the teachings of Anderson and Murphy, one skilled in the art would have had to place beads in the lysing chamber of the device of Anderson, and then submerge the device in an ultrasonic bath, while hoping that the lysing chamber portion of the device ends up located in a high energy area of the bath. Also, provisions for sealing the device would have to be made so that the bath water would not rush into the ports of the device and ruin it altogether. It is also unclear how one would force sample fluid flow within the device while it is submerged in water. Thus, Applicants submit it would not have been obvious or desirable to one skilled in the art to try to combine the teachings of Murphy with the device of Anderson.

Second, even if one did try to combine the teachings, the proposed combination of Anderson and Murphy would still not show all of the features of Applicants' device as recited in claim 1 or method steps as recited in claim 18. For instance, the proposed combination would not have at least one membrane or filter in the lysing chamber for capturing the sample components to be lysed as the sample flows through the chamber along with a transducer coupled to a wall of the lysing chamber for transferring ultrasonic energy to the chamber. The Applicants' device of claim 1 and method of claim 18 provides important advantages such as the concentration of cells to be lysed on the membrane or filter along with highly effective lysis of the captured cells using an ultrasonic transducer coupled to the lysing chamber wall.

For at least the foregoing reasons, independent claims 1 and 18 and claims 2-3 and 19-21 depending therefrom are patentable.

Claims 4-17 and 22-25

Applicants respectfully submit that independent claims 4 and 12 are patentable over Anderson and Murphy. First, as described in detail above with regard to claims 1-3 and 18-21, Applicants submit it would not have been obvious or desirable to one skilled in the art to try to combine the teachings of Murphy with the device of Anderson.

Second, even if one did try to combine the teachings, the proposed combination of Anderson and Murphy would still not show all of the features of Applicants' device as recited in claim 12 or method steps as recited in claim 4. For instance, the proposed combination would not have at least one solid phase in the lysing chamber for capturing the sample components to be lysed as the sample flows through the chamber along with a transducer coupled to a wall of the lysing chamber for transferring ultrasonic energy to the chamber. The Applicants' device of claim 1 and method of claim 18 provides important advantages such as the concentration of cells to be lysed on the solid phase along with highly effective lysis of the captured cells with an ultrasonic transducer coupled to the lysing chamber wall.

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For at least the foregoing reasons, independent claims 4 and 12 and claims 5-11, 13-17 and 22-25 depending therefrom are patentable.

Double Patenting

In response to the double patenting rejections, Applicants submit herewith terminal disclaimers pertaining to the relevant references.

CONCLUSION

In view of the foregoing, Applicants believe all claims now pending in this Application are in condition for allowance. The issuance of a formal Notice of Allowance at an early date is respectfully requested.

If the Examiner believes a telephone conference would expedite prosecution of this application, please telephone the undersigned at 650-326-2400.

Respectfully submitted,



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Attachments

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